ELSEVIER

Applied Surface Science 221 (2004) I–IV

applied surface science

www.elsevier.com/locate/apsusc

Author Index

Abd El Rehim, S.S., see Zaky, A.M. 221 (2004) 349
Abdel Halim, W.S., and A.S. Shalabi, Surface morphology and interaction between water and MgO, CaO and SrO surfaces. Periodic HF and DFT calculations 221 (2004) 53
Akiba, S., see Sakata, O. 221 (2004) 450
Akl, A.A., Microstructure and electrical properties of iron oxide thin films deposited by spray pyrolysis 221 (2004) 319
Anderson, C.A., see Borcia, G. 221 (2004) 203
Aparna, Y., see Panwar, O.S. 221 (2004) 392
Assaf, F.H., see Zaky, A.M. 221 (2004) 349

Bai, X.D., see Peng, D.Q. 221 (2004) 259
Balderas-Navarro, R.E., see Medel-Ruiz, C.I. 221 (2004) 48
Balooch, M., see Trelenberg, T.W. 221 (2004) 364
Baosen, X., see Shouzhen, Z. 221 (2004) 110
Baquey, Ch., see Duncan, A.C. 221 (2004) 93
Bhattacharyya, R., see Panwar, O.S. 221 (2004) 392
Bi, Z., W. Liao and L. Qi, Wettability alteration by CTAB adsorption at surfaces of SiO_2 film or silica gel powder and mimic oil recovery 221 (2004) 25
Blattner, A.J., and B.W. Wessels, Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy 221 (2004) 155
Bonse, J., K.-W. Brzezinka and A.J. Meixner, Modifying single-crystalline silicon by femtosecond laser pulses: an analysis by micro Raman spectroscopy, scanning laser microscopy and atomic force microscopy 221 (2004) 215
Bor, Z., see Hopp, B. 221 (2004) 437
Borcia, G., C.A. Anderson and N.M.D. Brown, The surface oxidation of selected polymers using an atmospheric pressure air dielectric barrier discharge. Part I 221 (2004) 203
Bouarissa, N., see Chaoui, Z. 221 (2004) 114
Brioude, A., P. Vincent, C. Journet, J.C. Plenet and S.T. Purcell, Synthesis of sheathed carbon nanotube tips by the sol–gel technique 221 (2004) 4
Brown, N.M.D., see Borcia, G. 221 (2004) 203
Brynsari, V.I., see Tolstoy, V.P. 221 (2004) 197
Brzezinka, K.-W., see Bonse, J. 221 (2004) 215

Carlson, D.E., see Ganguly, G. 221 (2004) 13
Chakraborty, B.R., Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling 221 (2004) 143
Chaoui, Z., and N. Bouarissa, Implantation profiles for low energy electrons in metals: scaling properties 221 (2004) 114
Chen, M., see Wang, J. 221 (2004) 272
Chen, W., see He, J. 221 (2004) 87
Chen, X.W., see Peng, D.Q. 221 (2004) 259
Chen, Y., see Yin, Y.-S. 221 (2004) 384
Cho, H.K., J.Y. Lee and J.Y. Leem, Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy 221 (2004) 288
Choi, W.-K., see Lee, W. 221 (2004) 32
Choi, Y.S., J.H. Kang, H.Y. Kim, B.G. Lee, C.G. Lee, S.K. Kang, Y.W. Jin, J.W. Kim, J.E. Jung and J.M. Kim, A simple structure and fabrication of carbon-nanotube field emission display 221 (2004) 370
Chua, D.H.C., K.B.K. Teo, T.H. Tsai, W.I. Milne, D. Sheeja, B.K. Tay and D. Schneider, Correlation of surface, mechanical and microproperties of tetrahedral amorphous carbon films deposited under different magnetic confinement conditions 221 (2004) 455
Cuiguo, L., see Shouzhen, Z. 221 (2004) 110

Dang, H., see Gu, G. 221 (2004) 129
Datta, S., see Klusek, Z. 221 (2004) 120
de Vos, S.A., see Nguyen, T.P. 221 (2004) 330
Deng, H., W. Hu, X. Shu and B. Zhang, Analytic embedded-atom method approach to studying the surface segregation of Al–Mg alloys 221 (2004) 408
Deqing, W., see Ziyuan, S. 221 (2004) 62
Dinh, L.N., see Trelenberg, T.W. 221 (2004) 364
Döring, A., see Hopp, B. 221 (2004) 437
Drouet, M., see Fouquet, V. 221 (2004) 248
Duncan, A.C., S. Lazare and Ch. Baquey, Use of biological nanoprobes for the characterization of micropatterned surfaces obtained by ultraviolet laser lithography 221 (2004) 93

Flores-Camacho, J.M., see Medel-Ruiz, C.I. 221 (2004) 48
Fouquet, V., L. Pichon, M. Drouet and A. Straboni, Plasma assisted nitridation of Ti-6Al-4V 221 (2004) 248

doi:10.1016/S0169-4332(03)01314-X

Fujihara, S., T. Schneller and R. Waser, Interfacial reactions and microstructure of $BaTiO_3$ films prepared using fluoride precursor method 221 (2004) 178
Fujita, D., see Xiao, Z. 221 (2004) 160

Gallardo, S.L., see Medel-Ruiz, C.I. 221 (2004) 48
Ganguly, G., R.S. Oswald and D.E. Carlson, Optimization of the stabilized performance of amorphous silicon solar cells deposited at high growth rates by de-coupling of gas and superstrate temperatures 221 (2004) 13
Gaona-Couto, A., see Medel-Ruiz, C.I. 221 (2004) 48
Grange, P., see Jung, S.M. 221 (2004) 167
Gu, G., Z. Zhang and H. Dang, Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient 221 (2004) 129
Guan, F., see Wang, J. 221 (2004) 272
Gulina, L.B., see Tolstoy, V.P. 221 (2004) 197

Hamada, E., see He, C. 221 (2004) 444
He, C., E. Hamada, T. Suzuki, T. Kumaki, H. Kobayashi, K. Kondo and Y. Ito, Pulsed slow-positron beam for polymer films 221 (2004) 444
He, J., W. Chen, N. Xu, L. Li, X. Li and G. Xue, SERS studies on the ordered structure of the surface of polypyrrole nanotubules 221 (2004) 87
Holland, A., see Leech, P.W. 221 (2004) 302
Hopp, B., N. Kresz, J. Kokavecz, T. Smausz, H. Schieferdecker, A. Döring, O. Marti and Z. Bor, Adhesive and morphological characteristics of surface chemically modified polytetrafluoroethylene films 221 (2004) 437
Hu, W., see Deng, H. 221 (2004) 408
Hwang, D.-K., see Lee, W. 221 (2004) 32

Ito, Y., see He, C. 221 (2004) 444

Je, J.H., see Kim, S.S. 221 (2004) 231
Jeon, D.Y., see Jung, Y.S. 221 (2004) 136
Jeong, M.-C., see Lee, W. 221 (2004) 32
Jin, Y.W., see Choi, Y.S. 221 (2004) 370
Joshi, R.K., A. Kanjilal and H.K. Sehgal, Solution grown PbS nanoparticle films 221 (2004) 43
Journet, C., see Brioude, A. 221 (2004) 4
Jung, J.E., see Choi, Y.S. 221 (2004) 370
Jung, S.M., and P. Grange, Characterization of the surface hydroxyl properties of sepiolite and $Ti(OH)_4$ and investigation of new properties generated over physical mixture of $Ti(OH)_4$–sepiolite 221 (2004) 167
Jung, Y.S., Study on texture evolution and properties of silver thin films prepared by sputtering deposition 221 (2004) 281
Jung, Y.S., D.W. Lee and D.Y. Jeon, Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films 221 (2004) 136

Kang, J.H., see Choi, Y.S. 221 (2004) 370
Kang, S.K., see Choi, Y.S. 221 (2004) 370
Kang, T.S., see Kim, S.S. 221 (2004) 231
Kanjilal, A., see Joshi, R.K. 221 (2004) 43
Khan, M.A., see Panwar, O.S. 221 (2004) 392
Kim, H.Y., see Choi, Y.S. 221 (2004) 370
Kim, J., see Teo, M. 221 (2004) 340
Kim, J.M., see Choi, Y.S. 221 (2004) 370
Kim, J.W., see Choi, Y.S. 221 (2004) 370
Kim, S.S., J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je, Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates 221 (2004) 231
Klusek, Z., S. Pierzgalski and S. Datta, Insulator–metal transition on heavily reduced TiO_2(1 1 0) surface studied by high temperature-scanning tunnelling spectroscopy (HT-STS) 221 (2004) 120
Kobayashi, H., see He, C. 221 (2004) 444
Kokavecz, J., see Hopp, B. 221 (2004) 437
Kondo, K., see He, C. 221 (2004) 444
Konoplitska, O.P., see Puziy, A.M. 221 (2004) 421
Korotchenkov, G.S., see Tolstoy, V.P. 221 (2004) 197
Kresz, N., see Hopp, B. 221 (2004) 437
Kumaki, T., see He, C. 221 (2004) 444

Lastras-Martínez, A., see Medel-Ruiz, C.I. 221 (2004) 48
Lastras-Martínez, L.F., see Medel-Ruiz, C.I. 221 (2004) 48
Lazare, S., see Duncan, A.C. 221 (2004) 93
Lee, B.G., see Choi, Y.S. 221 (2004) 370
Lee, B.-T., see Kim, S.S. 221 (2004) 231
Lee, C.G., see Choi, Y.S. 221 (2004) 370
Lee, D.W., see Jung, Y.S. 221 (2004) 136
Lee, J.Y., see Cho, H.K. 221 (2004) 288
Lee, M., see Lee, W. 221 (2004) 32
Lee, W., D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung, Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering 221 (2004) 32
Leech, P.W., G.K. Reeves, A. Holland and M.C. Ridgway, The effect of Au and O implantation on the etch rate of CVD diamond 221 (2004) 302
Leem, J.Y., see Cho, H.K. 221 (2004) 288
Leitch, A.W.R., see van Wyk, E. 221 (2004) 415
Li, J., see Yin, Y.-S. 221 (2004) 384
Li, L., see He, J. 221 (2004) 87
Li, X., see He, J. 221 (2004) 87
Li, X.J., see Xu, X.Q. 221 (2004) 430
Li, Z., see Zhou, H. 221 (2004) 402
Liao, W., see Bi, Z. 221 (2004) 25
Lin, C.L., see Wan, Q. 221 (2004) 38
Liu, J., see Sakata, O. 221 (2004) 450
Liu, X., see Wang, J. 221 (2004) 272
Liu, X.Y., see Peng, D.Q. 221 (2004) 259
Lu, X., T. Zheng, Z. Xia and D. Shen, Measured stopping power for ^{16}O ions in Al, Cu and Ag foils 221 (2004) 10

Marti, O., see Hopp, B. 221 (2004) 437
Matsuda, A., see Sakata, O. 221 (2004) 450
Medel-Ruiz, C.I., A. Lastras-Martínez, R.E. Balderas-Navarro, S.L. Gallardo, V.H. Méndez-García, J.M. Flores-Camacho, A. Gaona-Couto and L.F. Lastras-Martínez, In situ monitoring of the 2D–3D growth-mode transition in $In_{0.3}Ga_{0.7}As/GaAs$ (0 0 1) by reflectance-difference spectroscopy 221 (2004) 48
Meixner, A.J., see Bonse, J. 221 (2004) 215
Méndez-García, V.H., see Medel-Ruiz, C.I. 221 (2004) 48
Milne, W.I., see Chua, D.H.C. 221 (2004) 455
Mitchell, K.A.R., see Teo, M. 221 (2004) 340
Mohamed, B.M., see Zaky, A.M. 221 (2004) 349
Mohan, S., see Singh, K. 221 (2004) 308
Molian, P., see Womack, M. 221 (2004) 99
Mondal, A., see Ram, S. 221 (2004) 237
Moon, J.H., see Kim, S.S. 221 (2004) 231
Müllegger, S., O. Stranik, E. Zojer and A. Winkler, Adsorption, initial growth and desorption kinetics of *p*-quaterphenyl on polycrystalline gold surfaces 221 (2004) 184
Myoung, J.-M., see Lee, W. 221 (2004) 32

Nguyen, T.P., and S.A. de Vos, An investigation into the effect of chemical and thermal treatments on the structural changes of poly-(3,4-ethylenedioxythiophene)/polystyrene-sulfonate and consequences on its use on indium tin oxide substrates 221 (2004) 330

Oh, M.-S., see Lee, W. 221 (2004) 32
Ohgi, T., see Xiao, Z. 221 (2004) 160
Onishi, K., see Xiao, Z. 221 (2004) 160
Oswald, R.S., see Ganguly, G. 221 (2004) 13

Panwar, O.S., Y. Aparna, S.M. Shivaprasad, M.A. Khan, B.S. Satyanarayana and R. Bhattacharyya, XPS and XAES studies of as grown and nitrogen incorporated tetrahedral amorphous carbon films deposited by pulsed unfiltered cathodic vacuum arc process 221 (2004) 392
Peng, D.Q., X.D. Bai, X.W. Chen, Q.G. Zhou, X.Y. Liu and R.H. Yu, Comparison of electrochemical behavior of zirconium and zircaloy-4 implanted with Y and Ce ions 221 (2004) 259
Pichon, L., see Fouquet, V. 221 (2004) 248
Pierzgalski, S., see Klusek, Z. 221 (2004) 120
Plenet, J.C., see Brioude, A. 221 (2004) 4
Poddubnaya, O.I., see Puziy, A.M. 221 (2004) 421
Purcell, S.T., see Brioude, A. 221 (2004) 4
Puziy, A.M., O.I. Poddubnaya, V.N. Zaitsev and O.P. Konoplitska, Modeling of heavy metal ion binding by phosphoric acid activated carbon 221 (2004) 421

Qi, L., see Bi, Z. 221 (2004) 25

Ram, S., and A. Mondal, X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles 221 (2004) 237
Reeves, G.K., see Leech, P.W. 221 (2004) 302
Ren, S., see Wang, J. 221 (2004) 272
Ridgway, M.C., see Leech, P.W. 221 (2004) 302

Sakata, O., M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto, Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements 221 (2004) 450
Sasaki, A., see Sakata, O. 221 (2004) 450
Sato, S., see Sakata, O. 221 (2004) 450
Satyanarayana, B.S., see Panwar, O.S. 221 (2004) 392
Saw, C.K., see Trelenberg, T.W. 221 (2004) 364
Schieferdecker, H., see Hopp, B. 221 (2004) 437
Schneider, D., see Chua, D.H.C. 221 (2004) 455
Schneller, T., see Fujihara, S. 221 (2004) 178
Sehgal, H.K., see Joshi, R.K. 221 (2004) 43
Shalabi, A.S., see Halim, W.S. Abdel 221 (2004) 53
Sheeja, D., see Chua, D.H.C. 221 (2004) 455
Shen, D., see Lu, X. 221 (2004) 10
Shen, H., see Xu, X.Q. 221 (2004) 430
Shih, I., see Zhu, W.W. 221 (2004) 358
Shivaprasad, S.M., see Panwar, O.S. 221 (2004) 392
Shouzhen, Z., X. Baosen and L. Cuiguo, The photoemissive effect of the ITO–Cs thin film 221 (2004) 110
Shu, X., see Deng, H. 221 (2004) 408
Singh, K., and S. Mohan, Kinetic studies of the sucrose adsorption onto an alumina interface 221 (2004) 308
Smausz, T., see Hopp, B. 221 (2004) 437
Smith, G.C., see Fulton, W. Stephen 221 (2004) 69
Sohn, K.-S., see Kim, S.S. 221 (2004) 231
Song, W.L., see Wang, A.H. 221 (2004) 293
Stephen Fulton, W., G.C. Smith and K.J. Titchener, Interfacial microanalysis of rubber–tyre-cord adhesion and the influence of cobalt 221 (2004) 69
Straboni, A., see Fouquet, V. 221 (2004) 248
Stranik, O., see Müllegger, S. 221 (2004) 184
Stuart, B.C., see Trelenberg, T.W. 221 (2004) 364
Suzuki, T., see He, C. 221 (2004) 444

Tay, B.K., see Chua, D.H.C. 221 (2004) 455
Teo, K.B.K., see Chua, D.H.C. 221 (2004) 455
Teo, M., J. Kim, P.C. Wong, K.C. Wong and K.A.R. Mitchell, Investigations of interfaces formed between bis-1,2-(triethoxysilyl)ethane (BTSE) and aluminum after different Forest Product Laboratory pretreatment times 221 (2004) 340
Titchener, K.J., see Fulton, W. Stephen 221 (2004) 69
Tolstoy, V.P., L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari, Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method 221 (2004) 197

Trelenberg, T.W., L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch, Femtosecond pulsed laser ablation of GaAs 221 (2004) 364
Tsai, T.H., see Chua, D.H.C. 221 (2004) 455

van Wyk, E., and A.W.R. Leitch, Oxygen passivation and reactivation of interface states introduced during Schottky diode fabrication on bulk n-type 6H–SiC 221 (2004) 415
Vendan, M., see Womack, M. 221 (2004) 99
Vincent, P., see Brioude, A. 221 (2004) 4

Wan, Q., T.H. Wang and C.L. Lin, Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics 221 (2004) 38
Wang, A.H., W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng, Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting 221 (2004) 293
Wang, J., S. Yang, X. Liu, S. Ren, F. Guan and M. Chen, Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane 221 (2004) 272
Wang, T.H., see Wan, Q. 221 (2004) 38
Wang, W.Y., see Wang, A.H. 221 (2004) 293
Waser, R., see Fujihara, S. 221 (2004) 178
Weng, D., see Wu, X. 221 (2004) 375
Wessels, B.W., see Blattner, A.J. 221 (2004) 155
Winkler, A., see Müllegger, S. 221 (2004) 184
Womack, M., M. Vendan and P. Molian, Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene 221 (2004) 99
Wong, K.C., see Teo, M. 221 (2004) 340
Wong, P.C., see Teo, M. 221 (2004) 340
Wu, A., see Zhou, H. 221 (2004) 402
Wu, S., see Zhou, H. 221 (2004) 402
Wu, X., L. Xu and D. Weng, The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts 221 (2004) 375

Xia, Z., see Lu, X. 221 (2004) 10
Xiao, S., see Zhu, W.W. 221 (2004) 358
Xiao, Z., M. Xu, T. Ohgi, K. Onishi and D. Fujita, Removal of Si(1 1 1) wafer surface etch pits generated in ammonia-peroxide clean step 221 (2004) 160
Xie, C.S., see Wang, A.H. 221 (2004) 293
Xie, Y., and C. Yuan, Photocatalysis of neodymium ion modified TiO_2 sol under visible light irradiation 221 (2004) 17
Xu, J.R., see Xu, X.Q. 221 (2004) 430
Xu, K.-w., see Zhang, J.-m. 221 (2004) 1
Xu, L., see Wu, X. 221 (2004) 375
Xu, M., see Xiao, Z. 221 (2004) 160
Xu, N., see He, J. 221 (2004) 87
Xu, X.Q., H. Shen, J.R. Xu and X.J. Li, Aqueous-based magnetite magnetic fluids stabilized by surface small micelles of oleolysarcosine 221 (2004) 430
Xue, G., see He, J. 221 (2004) 87

Yang, S., see Wang, J. 221 (2004) 272
Yi, M.-S., see Sakata, O. 221 (2004) 450
Yin, Y.-S., J.-D. Zhang, J. Li and Y. Chen, Mechanical properties of Fe_3Al/Al_2O_3 composite graded coatings 221 (2004) 384
Yoshimoto, M., see Sakata, O. 221 (2004) 450
Yu, R.H., see Peng, D.Q. 221 (2004) 259
Yuan, C., see Xie, Y. 221 (2004) 17

Zaitsev, V.N., see Puziy, A.M. 221 (2004) 421
Zaky, A.M., F.H. Assaf, S.S. Abd El Rehim and B.M. Mohamed, Electrochemical behaviour of silver in borate buffer solutions 221 (2004) 349
Zeng, D.W., see Wang, A.H. 221 (2004) 293
Zhang, B., see Deng, H. 221 (2004) 408
Zhang, J., see Zhou, H. 221 (2004) 402
Zhang, J.-D., see Yin, Y.-S. 221 (2004) 384
Zhang, J.-m., and K.-w. Xu, Valence electron structure analysis of crystalline orientation in plasma-sprayed TiO_2 coatings 221 (2004) 1
Zhang, Z., see Gu, G. 221 (2004) 129
Zheng, J., see Zhou, H. 221 (2004) 402
Zheng, T., see Lu, X. 221 (2004) 10
Zhimin, D., see Ziyuan, S. 221 (2004) 62
Zhou, H., Z. Li, A. Wu, J. Zheng, J. Zhang and S. Wu, The influence of tip performance on scanning probe lithography 221 (2004) 402
Zhou, Q.G., see Peng, D.Q. 221 (2004) 259
Zhu, W.W., S. Xiao and I. Shih, Field-effect mobilities of polyhedral oligomeric silsesquioxanes anchored semiconducting polymers 221 (2004) 358
Ziyuan, S., W. Deqing and D. Zhimin, Surface strengthening pure copper by Ni-B coating 221 (2004) 62
Zojer, E., see Müllegger, S. 221 (2004) 184

ELSEVIER

Applied Surface Science 221 (2004) V–XVIII

applied surface science

www.elsevier.com/locate/apsusc

Subject Index

Ablation

Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364

Alkali metals

The photoemissive effect of the ITO–Cs thin film, Z. Shouzhen, X. Baosen and L. Cui-guo 221 (2004) 110

Comparison of electrochemical behavior of zirconium and zircaloy-4 implanted with Y and Ce ions, D.Q. Peng, X.D. Bai, X.W. Chen, Q.G. Zhou, X.Y. Liu and R.H. Yu 221 (2004) 259

Alloys

Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38

Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155

Mechanical properties of Fe_3Al/Al_2O_3 composite graded coatings, Y.-S. Yin, J.-D. Zhang, J. Li and Y. Chen 221 (2004) 384

Analytic embedded-atom method approach to studying the surface segregation of Al–Mg alloys, H. Deng, W. Hu, X. Shu and B. Zhang 221 (2004) 408

Alluminium

Measured stopping power for ^{16}O ions in Al, Cu and Ag foils, X. Lu, T. Zheng, Z. Xia and D. Shen 221 (2004) 10

X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles, S. Ram and A. Mondal 221 (2004) 237

Plasma assisted nitridation of Ti-6Al-4V, V. Fouquet, L. Pichon, M. Drouet and A. Straboni 221 (2004) 248

Investigations of interfaces formed between bis-1,2-(triethoxysilyl)ethane (BTSE) and aluminum after different Forest Product Laboratory pre-treatment times, M. Teo, J. Kim, P.C. Wong, K.C. Wong and K.A.R. Mitchell 221 (2004) 340

Analytic embedded-atom method approach to studying the surface segregation of Al–Mg alloys, H. Deng, W. Hu, X. Shu and B. Zhang 221 (2004) 408

Aluminium Gold

Implantation profiles for low energy electrons in metals: scaling properties, Z. Chaoui and N. Bouarissa 221 (2004) 114

Aluminium oxide

Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting, A.H. Wang, W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng 221 (2004) 293

Kinetic studies of the sucrose adsorption onto an alumina interface, K. Singh and S. Mohan 221 (2004) 308

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375

Mechanical properties of Fe_3Al/Al_2O_3 composite graded coatings, Y.-S. Yin, J.-D. Zhang, J. Li and Y. Chen 221 (2004) 384

Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements, O. Sakata, M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto 221 (2004) 450

Arc evaporation

XPS and XAES studies of as grown and nitrogen incorporated tetrahedral amorphous carbon films deposited by pulsed unfiltered cathodic vacuum arc process, O.S. Panwar, Y. Aparna, S.M. Shivaprasad, M.A. Khan, B.S. Satyanarayana and R. Bhattacharyya 221 (2004) 392

doi:10.1016/S0169-4332(03)01315-1

Correlation of surface, mechanical and micro-properties of tetrahedral amorphous carbon films deposited under different magnetic confinement conditions, D.H.C. Chua, K.B.K. Teo, T.H. Tsai, W.I. Milne, D. Sheeja, B.K. Tay and D. Schneider 221 (2004) 455

Arsenic

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32
Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155

Atomic force microscopy

Photocatalysis of neodymium ion modified TiO_2 sol under visible light irradiation, Y. Xie and C. Yuan 221 (2004) 17
Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32
Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38
Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene, M. Womack, M. Vendan and P. Molian 221 (2004) 99
Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129
Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films, Y.S. Jung, D.W. Lee and D.Y. Jeon 221 (2004) 136
Removal of Si(1 1 1) wafer surface etch pits generated in ammonia-peroxide clean step, Z. Xiao, M. Xu, T. Ohgi, K. Onishi and D. Fujita 221 (2004) 160
Modifying single-crystalline silicon by femtosecond laser pulses: an analysis by micro Raman spectroscopy, scanning laser microscopy and atomic force microscopy, J. Bonse, K.-W. Brzezinka and A.J. Meixner 221 (2004) 215
Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231
Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane, J. Wang, S. Yang, X. Liu, S. Ren, F. Guan and M. Chen 221 (2004) 272
Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364
Adhesive and morphological characteristics of surface chemically modified polytetrafluoroethylene films, B. Hopp, N. Kresz, J. Kokavecz, T. Smausz, H. Schieferdecker, A. Döring, O. Marti and Z. Bor 221 (2004) 437
Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements, O. Sakata, M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto 221 (2004) 450

Auger electron spectroscopy

Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364
XPS and XAES studies of as grown and nitrogen incorporated tetrahedral amorphous carbon films deposited by pulsed unfiltered cathodic vacuum arc process, O.S. Panwar, Y. Aparna, S.M. Shivaprasad, M.A. Khan, B.S. Satyanarayana and R. Bhattacharyya 221 (2004) 392

Barium

Interfacial reactions and microstructure of $BaTiO_3$ films prepared using fluoride precursor method, S. Fujihara, T. Schneller and R. Waser 221 (2004) 178

Boron

Surface strengthening pure copper by Ni-B coating, S. Ziyuan, W. Deqing and D. Zhimin 221 (2004) 62
Electrochemical behaviour of silver in borate buffer solutions, A.M. Zaky, F.H. Assaf, S.S. Abd El Rehim and B.M. Mohamed 221 (2004) 349

Biological materials

Use of biological nanoprobes for the characterization of micropatterned surfaces obtained by ultraviolet laser lithography, A.C. Duncan, S. Lazare and Ch. Baquey 221 (2004) 93

Cadmium

Modeling of heavy metal ion binding by phosphoric acid activated carbon, A.M. Puziy, O.I. Poddubnaya, V.N. Zaitsev and O.P. Konoplitska 221 (2004) 421

Calcium

Surface morphology and interaction between water and MgO, CaO and SrO surfaces. Periodic HF and DFT calculations, W.S. Abdel Halim and A.S. Shalabi 221 (2004) 53

Carbon

Synthesis of sheathed carbon nanotube tips by the sol–gel technique, A. Brioude, P. Vincent, C. Journet, J.C. Plenet and S.T. Purcell 221 (2004) 4

A simple structure and fabrication of carbon-nanotube field emission display, Y.S. Choi, J.H. Kang, H.Y. Kim, B.G. Lee, C.G. Lee, S.K. Kang, Y.W. Jin, J.W. Kim, J.E. Jung and J.M. Kim 221 (2004) 370

XPS and XAES studies of as grown and nitrogen incorporated tetrahedral amorphous carbon films deposited by pulsed unfiltered cathodic vacuum arc process, O.S. Panwar, Y. Aparna, S.M. Shivaprasad, M.A. Khan, B.S. Satyanarayana and R. Bhattacharyya 221 (2004) 392

Modeling of heavy metal ion binding by phosphoric acid activated carbon, A.M. Puziy, O.I. Poddubnaya, V.N. Zaitsev and O.P. Konoplitska 221 (2004) 421

Correlation of surface, mechanical and micro-properties of tetrahedral amorphous carbon films deposited under different magnetic confinement conditions, D.H.C. Chua, K.B.K. Teo, T.H. Tsai, W.I. Milne, D. Sheeja, B.K. Tay and D. Schneider 221 (2004) 455

Catalysis

Photocatalysis of neodymium ion modified TiO_2 sol under visible light irradiation, Y. Xie and C. Yuan 221 (2004) 17

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375

Ceramics

X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles, S. Ram and A. Mondal 221 (2004) 237

Cerium

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375

Chemical vapour deposition

Optimization of the stabilized performance of amorphous silicon solar cells deposited at high growth rates by de-coupling of gas and superstrate temperatures, G. Ganguly, R.S. Oswald and D.E. Carlson 221 (2004) 13

The effect of Au and O implantation on the etch rate of CVD diamond, P.W. Leech, G.K. Reeves, A. Holland and M.C. Ridgway 221 (2004) 302

Clusters

Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364

Cobalt

Modeling of heavy metal ion binding by phosphoric acid activated carbon, A.M. Puziy, O.I. Poddubnaya, V.N. Zaitsev and O.P. Konoplitska 221 (2004) 421

Computer simulations

Surface morphology and interaction between water and MgO, CaO and SrO surfaces. Periodic HF and DFT calculations, W.S. Abdel Halim and A.S. Shalabi 221 (2004) 53

Copper

Measured stopping power for ^{16}O ions in Al, Cu and Ag foils, X. Lu, T. Zheng, Z. Xia and D. Shen 221 (2004) 10

Modeling of heavy metal ion binding by phosphoric acid activated carbon, A.M. Puziy, O.I. Poddubnaya, V.N. Zaitsev and O.P. Konoplitska 221 (2004) 421

Depth profiling

Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling 221 (2004) 143

Doping effect

Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231

Doping effects

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by

radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32

Electrical properties

Study on texture evolution and properties of silver thin films prepared by sputtering deposition, Y.S. Jung 221 (2004) 281
Microstructure and electrical properties of iron oxide thin films deposited by spray pyrolysis, A.A. Akl 221 (2004) 319
Field-effect mobilities of polyhedral oligomeric silsesquioxanes anchored semiconducting polymers, W.W. Zhu, S. Xiao and I. Shih 221 (2004) 358
Oxygen passivation and reactivation of interface states introduced during Schottky diode fabrication on bulk n-type 6H–SiC, E. van Wyk and A.W.R. Leitch 221 (2004) 415

Electron bombardment

Implantation profiles for low energy electrons in metals: scaling properties, Z. Chaoui and N. Bouarissa 221 (2004) 114

Electron microscopy

Synthesis of sheathed carbon nanotube tips by the sol–gel technique, A. Brioude, P. Vincent, C. Journet, J.C. Plenet and S.T. Purcell 221 (2004) 4
Solution grown PbS nanoparticle films, R.K. Joshi, A. Kanjilal and H.K. Sehgal 221 (2004) 43
SERS studies on the ordered structure of the surface of polypyrrole nanotubules, J. He, W. Chen, N. Xu, L. Li, X. Li and G. Xue 221 (2004) 87
Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene, M. Womack, M. Vendan and P. Molian 221 (2004) 99
Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129
Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films, Y.S. Jung, D.W. Lee and D.Y. Jeon 221 (2004) 136
Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155
Interfacial reactions and microstructure of $BaTiO_3$ films prepared using fluoride precursor method, S. Fujihara, T. Schneller and R. Waser 221 (2004) 178
Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method, V.P. Tolstoy, L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari 221 (2004) 197
The surface oxidation of selected polymers using an atmospheric pressure air dielectric barrier discharge. Part I, G. Borcia, C.A. Anderson and N.M.D. Brown 221 (2004) 203
Plasma assisted nitridation of Ti-6Al-4V, V. Fouquet, L. Pichon, M. Drouet and A. Straboni 221 (2004) 248
Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy, H.K. Cho, J.Y. Lee and J.Y. Leem 221 (2004) 288
Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting, A.H. Wang, W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng 221 (2004) 293
Microstructure and electrical properties of iron oxide thin films deposited by spray pyrolysis, A.A. Akl 221 (2004) 319
Investigations of interfaces formed between bis-1,2-(triethoxysilyl)ethane (BTSE) and aluminum after different Forest Product Laboratory pre-treatment times, M. Teo, J. Kim, P.C. Wong, K.C. Wong and K.A.R. Mitchell 221 (2004) 340
The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375
Mechanical properties of Fe_3Al/Al_2O_3 composite graded coatings, Y.-S. Yin, J.-D. Zhang, J. Li and Y. Chen 221 (2004) 384

Ellipsometry

Wettability alteration by CTAB adsorption at surfaces of SiO_2 film or silica gel powder and mimic oil recovery, Z. Bi, W. Liao and L. Qi 221 (2004) 25
Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane, J. Wang, S. Yang, X. Liu, S. Ren, F. Guan and M. Chen 221 (2004) 272

Epitaxy

Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements, O. Sakata, M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto 221 (2004) 450

Etching

Removal of Si(1 1 1) wafer surface etch pits generated in ammonia-peroxide clean step, Z. Xiao, M. Xu, T. Ohgi, K. Onishi and D. Fujita 221 (2004) 160

The effect of Au and O implantation on the etch rate of CVD diamond, P.W. Leech, G.K. Reeves, A. Holland and M.C. Ridgway 221 (2004) 302

Europium

Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231

Evaporation

Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38

Field emission

Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38
A simple structure and fabrication of carbon-nanotube field emission display, Y.S. Choi, J.H. Kang, H.Y. Kim, B.G. Lee, C.G. Lee, S.K. Kang, Y.W. Jin, J.W. Kim, J.E. Jung and J.M. Kim 221 (2004) 370

Fluorescence

Use of biological nanoprobes for the characterization of micropatterned surfaces obtained by ultraviolet laser lithography, A.C. Duncan, S. Lazare and Ch. Baquey 221 (2004) 93

Gallium

Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy, H.K. Cho, J.Y. Lee and J.Y. Leem 221 (2004) 288

Gallium arsenide

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32
In situ monitoring of the 2D–3D growth-mode transition in $In_{0.3}Ga_{0.7}As/GaAs$ (0 0 1) by reflectance-difference spectroscopy, C.I. Medel-Ruiz, A. Lastras-Martínez, R.E. Balderas-Navarro, S.L. Gallardo, V.H. Méndez-García, J.M. Flores-Camacho, A. Gaona-Couto and L.F. Lastras-Martínez 221 (2004) 48
Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling, B.R. Chakraborty 221 (2004) 143
Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364

Germanium

Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling, B.R. Chakraborty 221 (2004) 143

Gold

Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38
Adsorption, initial growth and desorption kinetics of *p*-quaterphenyl on polycrystalline gold surfaces, S. Müllegger, O. Stranik, E. Zojer and A. Winkler 221 (2004) 184
The effect of Au and O implantation on the etch rate of CVD diamond, P.W. Leech, G.K. Reeves, A. Holland and M.C. Ridgway 221 (2004) 302

Hydrides

Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method, V.P. Tolstoy, L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari 221 (2004) 197

Hydrocarbon

Kinetic studies of the sucrose adsorption onto an alumina interface, K. Singh and S. Mohan 221 (2004) 308

Hydrocarbons

Wettability alteration by CTAB adsorption at surfaces of SiO_2 film or silica gel powder and mimic oil recovery, Z. Bi, W. Liao and L. Qi 221 (2004) 25
Adsorption, initial growth and desorption kinetics of *p*-quaterphenyl on polycrystalline gold surfaces, S. Müllegger, O. Stranik, E. Zojer and A. Winkler 221 (2004) 184

Indium

In situ monitoring of the 2D–3D growth-mode transition in $In_{0.3}Ga_{0.7}As/GaAs$ (0 0 1) by

reflectance-difference spectroscopy, C.I. Medel-Ruiz, A. Lastras-Martínez, R.E. Balderas-Navarro, S.L. Gallardo, V.H. Méndez-García, J.M. Flores-Camacho, A. Gaona-Couto and L.F. Lastras-Martínez 221 (2004) 48
Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155
Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy, H.K. Cho, J.Y. Lee and J.Y. Leem 221 (2004) 288

Indium tin oxide

The photoemissive effect of the ITO–Cs thin film, Z. Shouzhen, X. Baosen and L. Cuiguo 221 (2004) 110
Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films, Y.S. Jung, D.W. Lee and D.Y. Jeon 221 (2004) 136

Infrared spectroscopy

Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129
Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method, V.P. Tolstoy, L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari 221 (2004) 197
Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane, J. Wang, S. Yang, X. Liu, S. Ren, F. Guan and M. Chen 221 (2004) 272
Aqueous-based magnetite magnetic fluids stabilized by surface small micelles of oleolysarcosine, X.Q. Xu, H. Shen, J.R. Xu and X.J. Li 221 (2004) 430

Interfaces

Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling, B.R. Chakraborty 221 (2004) 143
Oxygen passivation and reactivation of interface states introduced during Schottky diode fabrication on bulk n-type 6H–SiC, E. van Wyk and A.W.R. Leitch 221 (2004) 415

Ion bombardment

Measured stopping power for ^{16}O ions in Al, Cu and Ag foils, X. Lu, T. Zheng, Z. Xia and D. Shen 221 (2004) 10

Ion implantation

Comparison of electrochemical behavior of zirconium and zircaloy-4 implanted with Y and Ce ions, D.Q. Peng, X.D. Bai, X.W. Chen, Q.G. Zhou, X.Y. Liu and R.H. Yu 221 (2004) 259
The effect of Au and O implantation on the etch rate of CVD diamond, P.W. Leech, G.K. Reeves, A. Holland and M.C. Ridgway 221 (2004) 302

Iron

Microstructure and electrical properties of iron oxide thin films deposited by spray pyrolysis, A.A. Akl 221 (2004) 319
Mechanical properties of Fe_3Al/Al_2O_3 composite graded coatings, Y.-S. Yin, J.-D. Zhang, J. Li and Y. Chen 221 (2004) 384
Aqueous-based magnetite magnetic fluids stabilized by surface small micelles of oleolysarcosine, X.Q. Xu, H. Shen, J.R. Xu and X.J. Li 221 (2004) 430

Laser processing

Use of biological nanoprobes for the characterization of micropatterned surfaces obtained by ultraviolet laser lithography, A.C. Duncan, S. Lazare and Ch. Baquey 221 (2004) 93
Modifying single-crystalline silicon by femtosecond laser pulses: an analysis by micro Raman spectroscopy, scanning laser microscopy and atomic force microscopy, J. Bonse, K.-W. Brzezinka and A.J. Meixner 221 (2004) 215
Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting, A.H. Wang, W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng 221 (2004) 293
Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364

Lead

Solution grown PbS nanoparticle films, R.K. Joshi, A. Kanjilal and H.K. Sehgal 221 (2004) 43
Modeling of heavy metal ion binding by phosphoric acid activated carbon, A.M. Puziy, O.I. Poddubnaya, V.N. Zaitsev and O.P. Konoplitska 221 (2004) 421

Luminescence

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32

Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231

Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy, H.K. Cho, J.Y. Lee and J.Y. Leem 221 (2004) 288

Magnesium

Analytic embedded-atom method approach to studying the surface segregation of Al–Mg alloys, H. Deng, W. Hu, X. Shu and B. Zhang 221 (2004) 408

Magnesium oxide

Surface morphology and interaction between water and MgO, CaO and SrO surfaces. Periodic HF and DFT calculations, W.S. Abdel Halim and A.S. Shalabi 221 (2004) 53

Magnetic measurement

Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155

Magnetic measurements

Aqueous-based magnetite magnetic fluids stabilized by surface small micelles of oleolysarcosine, X.Q. Xu, H. Shen, J.R. Xu and X.J. Li 221 (2004) 430

Manganese

Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155

Metals

Implantation profiles for low energy electrons in metals: scaling properties, Z. Chaoui and N. Bouarissa 221 (2004) 114

Molecular beam epitaxy

In situ monitoring of the 2D–3D growth-mode transition in $In_{0.3}Ga_{0.7}As/GaAs$ (0 0 1) by reflectance-difference spectroscopy, C.I. Medel-Ruiz, A. Lastras-Martínez, R.E. Balderas-Navarro, S.L. Gallardo, V.H. Méndez-García, J.M. Flores-Camacho, A. Gaona-Couto and L.F. Lastras-Martínez 221 (2004) 48

Monte Carlo simulations

Implantation profiles for low energy electrons in metals: scaling properties, Z. Chaoui and N. Bouarissa 221 (2004) 114

Analytic embedded-atom method approach to studying the surface segregation of Al–Mg alloys, H. Deng, W. Hu, X. Shu and B. Zhang 221 (2004) 408

Nanostructures

Synthesis of sheathed carbon nanotube tips by the sol–gel technique, A. Brioude, P. Vincent, C. Journet, J.C. Plenet and S.T. Purcell 221 (2004) 4

Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38

SERS studies on the ordered structure of the surface of polypyrrole nanotubules, J. He, W. Chen, N. Xu, L. Li, X. Li and G. Xue 221 (2004) 87

Use of biological nanoprobes for the characterization of micropatterned surfaces obtained by ultraviolet laser lithography, A.C. Duncan, S. Lazare and Ch. Baquey 221 (2004) 93

Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling, B.R. Chakraborty 221 (2004) 143

X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles, S. Ram and A. Mondal 221 (2004) 237

A simple structure and fabrication of carbon-nanotube field emission display, Y.S. Choi, J.H. Kang, H.Y. Kim, B.G. Lee, C.G. Lee, S.K. Kang, Y.W. Jin, J.W. Kim, J.E. Jung and J.M. Kim 221 (2004) 370

The influence of tip performance on scanning probe lithography, H. Zhou, Z. Li, A. Wu, J. Zheng, J. Zhang and S. Wu 221 (2004) 402

Neodynium

Photocatalysis of neodymium ion modified TiO_2 sol under visible light irradiation, Y. Xie and C. Yuan 221 (2004) 17

Nickel

Surface strengthening pure copper by Ni-B coating, S. Ziyuan, W. Deqing and D. Zhimin 221 (2004) 62

Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements, O. Sakata, M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto 221 (2004) 450

Nitrides

Plasma assisted nitridation of Ti-6Al-4V, V. Fouquet, L. Pichon, M. Drouet and A. Straboni 221 (2004) 248

Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy, H.K. Cho, J.Y. Lee and J.Y. Leem 221 (2004) 288

Nitrogen

XPS and XAES studies of as grown and nitrogen incorporated tetrahedral amorphous carbon films deposited by pulsed unfiltered cathodic vacuum arc process, O.S. Panwar, Y. Aparna, S.M. Shivaprasad, M.A. Khan, B.S. Satyanarayana and R. Bhattacharyya 221 (2004) 392

Optical properties

Solution grown PbS nanoparticle films, R.K. Joshi, A. Kanjilal and H.K. Sehgal 221 (2004) 43

The photoemissive effect of the ITO–Cs thin film, Z. Shouzhen, X. Baosen and L. Cuiguo 221 (2004) 110

Study on texture evolution and properties of silver thin films prepared by sputtering deposition, Y.S. Jung 221 (2004) 281

Organic substances

Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129

Organo metallic vapour deposition

Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155

Oxidation

The surface oxidation of selected polymers using an atmospheric pressure air dielectric barrier discharge. Part I, G. Borcia, C.A. Anderson and N.M.D. Brown 221 (2004) 203

Oxide

Interfacial reactions and microstructure of $BaTiO_3$ films prepared using fluoride precursor method, S. Fujihara, T. Schneller and R. Waser 221 (2004) 178

Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method, V.P. Tolstoy, L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari 221 (2004) 197

Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231

X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles, S. Ram and A. Mondal 221 (2004) 237

Aqueous-based magnetite magnetic fluids stabilized by surface small micelles of oleolysarcosine, X.Q. Xu, H. Shen, J.R. Xu and X.J. Li 221 (2004) 430

Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane, J. Wang, S. Yang, X. Liu, S. Ren, F. Guan and M. Chen 221 (2004) 272

Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting, A.H. Wang, W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng 221 (2004) 293

Microstructure and electrical properties of iron oxide thin films deposited by spray pyrolysis, A.A. Akl 221 (2004) 319

Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements, O. Sakata, M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto 221 (2004) 450

Oxygen

Measured stopping power for ^{16}O ions in Al, Cu and Ag foils, X. Lu, T. Zheng, Z. Xia and D. Shen 221 (2004) 10

Oxygen passivation and reactivation of interface states introduced during Schottky diode fabrication on bulk n-type 6H–SiC, E. van Wyk and A.W.R. Leitch 221 (2004) 415

Oxygen diamond

The effect of Au and O implantation on the etch rate of CVD diamond, P.W. Leech, G.K. Reeves, A. Holland and M.C. Ridgway 221 (2004) 302

Palladium

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375

Photochemistry

Photocatalysis of neodymium ion modified TiO_2 sol under visible light irradiation, Y. Xie and C. Yuan 221 (2004) 17

Photoelectron spectroscopy

Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene, M. Womack, M. Vendan and P. Molian 221 (2004) 99

Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129

Adsorption, initial growth and desorption kinetics of *p*-quaterphenyl on polycrystalline gold surfaces, S. Müllegger, O. Stranik, E. Zojer and A. Winkler 221 (2004) 184

Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method, V.P. Tolstoy, L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari 221 (2004) 197

The surface oxidation of selected polymers using an atmospheric pressure air dielectric barrier discharge. Part I, G. Borcia, C.A. Anderson and N.M.D. Brown 221 (2004) 203

X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles, S. Ram and A. Mondal 221 (2004) 237

Comparison of electrochemical behavior of zirconium and zircaloy-4 implanted with Y and Ce ions, D.Q. Peng, X.D. Bai, X.W. Chen, Q.G. Zhou, X.Y. Liu and R.H. Yu 221 (2004) 259

Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane, J. Wang, S. Yang, X. Liu, S. Ren, F. Guan and M. Chen 221 (2004) 272

Investigations of interfaces formed between bis-1,2-(triethoxysilyl)ethane (BTSE) and aluminum after different Forest Product Laboratory pre-treatment times, M. Teo, J. Kim, P.C. Wong, K.C. Wong and K.A.R. Mitchell 221 (2004) 340

Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375

XPS and XAES studies of as grown and nitrogen incorporated tetrahedral amorphous carbon films deposited by pulsed unfiltered cathodic vacuum arc process, O.S. Panwar, Y. Aparna, S.M. Shivaprasad, M.A. Khan, B.S. Satyanarayana and R. Bhattacharyya 221 (2004) 392

Correlation of surface, mechanical and microproperties of tetrahedral amorphous carbon films deposited under different magnetic confinement conditions, D.H.C. Chua, K.B.K. Teo, T.H. Tsai, W.I. Milne, D. Sheeja, B.K. Tay and D. Schneider 221 (2004) 455

Investigations of interfaces formed between bis-1,2-(triethoxysilyl)ethane (BTSE) and aluminum after different Forest Product Laboratory pre-treatment times, M. Teo, J. Kim, P.C. Wong, K.C. Wong and K.A.R. Mitchell 221 (2004) 340

Plasma processing

Valence electron structure analysis of crystalline orientation in plasma-sprayed TiO_2 coatings, J.-m. Zhang and K.-w. Xu 221 (2004) 1

Optimization of the stabilized performance of amorphous silicon solar cells deposited at high growth rates by de-coupling of gas and superstrate temperatures, G. Ganguly, R.S. Oswald and D.E. Carlson 221 (2004) 13

Plasma assisted nitridation of Ti-6Al-4V, V. Fouquet, L. Pichon, M. Drouet and A. Straboni 221 (2004) 248

Polymers

SERS studies on the ordered structure of the surface of polypyrrole nanotubules, J. He, W. Chen, N. Xu, L. Li, X. Li and G. Xue 221 (2004) 87

Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene, M. Womack, M. Vendan and P. Molian 221 (2004) 99

The surface oxidation of selected polymers using an atmospheric pressure air dielectric barrier discharge. Part I, G. Borcia, C.A. Anderson and N.M.D. Brown 221 (2004) 203

Field-effect mobilities of polyhedral oligomeric silsesquioxanes anchored semiconducting polymers, W.W. Zhu, S. Xiao and I. Shih 221 (2004) 358

Adhesive and morphological characteristics of surface chemically modified polytetrafluoroethylene films, B. Hopp, N. Kresz, J. Kokavecz, T. Smausz, H. Schieferdecker, A. Döring, O. Marti and Z. Bor 221 (2004) 437

Pulsed slow-positron beam for polymer films, C. He, E. Hamada, T. Suzuki, T. Kumaki, H. Kobayashi, K. Kondo and Y. Ito 221 (2004) 444

Position annihilation

Pulsed slow-positron beam for polymer films, C. He, E. Hamada, T. Suzuki, T. Kumaki, H. Kobayashi, K. Kondo and Y. Ito 221 (2004) 444

Pulsed laser deposition

Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene, M. Womack, M. Vendan and P. Molian 221 (2004) 99
Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231

Quantum effects

Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy, H.K. Cho, J.Y. Lee and J.Y. Leem 221 (2004) 288

Raman scattering

SERS studies on the ordered structure of the surface of polypyrrole nanotubules, J. He, W. Chen, N. Xu, L. Li, X. Li and G. Xue 221 (2004) 87
Modifying single-crystalline silicon by femtosecond laser pulses: an analysis by micro Raman spectroscopy, scanning laser microscopy and atomic force microscopy, J. Bonse, K.-W. Brzezinka and A.J. Meixner 221 (2004) 215
The effect of Au and O implantation on the etch rate of CVD diamond, P.W. Leech, G.K. Reeves, A. Holland and M.C. Ridgway 221 (2004) 302
Correlation of surface, mechanical and microproperties of tetrahedral amorphous carbon films deposited under different magnetic confinement conditions, D.H.C. Chua, K.B.K. Teo, T.H. Tsai, W.I. Milne, D. Sheeja, B.K. Tay and D. Schneider 221 (2004) 455

Rhodium

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375

Scanning probe microscopy

The influence of tip performance on scanning probe lithography, H. Zhou, Z. Li, A. Wu, J. Zheng, J. Zhang and S. Wu 221 (2004) 402

Scanning tunneling microscopy

Insulator–metal transition on heavily reduced TiO_2(1 1 0) surface studied by high temperature-scanning tunnelling spectroscopy (HT-STS), Z. Klusek, S. Pierzgalski and S. Datta 221 (2004) 120

Scanning tunneling spectroscopy

Insulator–metal transition on heavily reduced TiO_2(1 1 0) surface studied by high temperature-scanning tunnelling spectroscopy (HT-STS), Z. Klusek, S. Pierzgalski and S. Datta 221 (2004) 120

Schottky barriers

Oxygen passivation and reactivation of interface states introduced during Schottky diode fabrication on bulk n-type 6H–SiC, E. van Wyk and A.W.R. Leitch 221 (2004) 415

Secondary ion mass spectroscopy

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32
Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling, B.R. Chakraborty 221 (2004) 143
Investigations of interfaces formed between bis-1,2-(triethoxysilyl)ethane (BTSE) and aluminum after different Forest Product Laboratory pre-treatment times, M. Teo, J. Kim, P.C. Wong, K.C. Wong and K.A.R. Mitchell 221 (2004) 340

Semiconductors

Field-effect mobilities of polyhedral oligomeric silsesquioxanes anchored semiconducting polymers, W.W. Zhu, S. Xiao and I. Shih 221 (2004) 358

Silicon

Optimization of the stabilized performance of amorphous silicon solar cells deposited at high growth rates by de-coupling of gas and superstrate temperatures, G. Ganguly, R.S. Oswald and D.E. Carlson 221 (2004) 13
Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38
Characterization of interfaces in nanoscale semiconductor devices by optimization of depth resolution in SIMS depth profiling, B.R. Chakraborty 221 (2004) 143
Removal of Si(1 1 1) wafer surface etch pits generated in ammonia-peroxide clean step,

Z. Xiao, M. Xu, T. Ohgi, K. Onishi and D. Fujita 221 (2004) 160
Modifying single-crystalline silicon by femtosecond laser pulses: an analysis by micro Raman spectroscopy, scanning laser microscopy and atomic force microscopy, J. Bonse, K.-W. Brzezinka and A.J. Meixner 221 (2004) 215
Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231

Silicon carbide

Oxygen passivation and reactivation of interface states introduced during Schottky diode fabrication on bulk n-type 6H–SiC, E. van Wyk and A.W.R. Leitch 221 (2004) 415

Silicon oxide

Wettability alteration by CTAB adsorption at surfaces of SiO_2 film or silica gel powder and mimic oil recovery, Z. Bi, W. Liao and L. Qi 221 (2004) 25
Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129

Silane

Investigations of interfaces formed between bis-1,2-(triethoxysilyl)ethane (BTSE) and aluminum after different Forest Product Laboratory pre-treatment times, M. Teo, J. Kim, P.C. Wong, K.C. Wong and K.A.R. Mitchell 221 (2004) 340

Silver

Measured stopping power for ^{16}O ions in Al, Cu and Ag foils, X. Lu, T. Zheng, Z. Xia and D. Shen 221 (2004) 10
Study on texture evolution and properties of silver thin films prepared by sputtering deposition, Y.S. Jung 221 (2004) 281
Electrochemical behaviour of silver in borate buffer solutions, A.M. Zaky, F.H. Assaf, S.S. Abd El Rehim and B.M. Mohamed 221 (2004) 349

Sputter deposition

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32
Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films, Y.S. Jung, D.W. Lee and D.Y. Jeon 221 (2004) 136
Study on texture evolution and properties of silver thin films prepared by sputtering deposition, Y.S. Jung 221 (2004) 281

Strontium oxides

Surface morphology and interaction between water and MgO, CaO and SrO surfaces. Periodic HF and DFT calculations, W.S. Abdel Halim and A.S. Shalabi 221 (2004) 53

Sulphides

Solution grown PbS nanoparticle films, R.K. Joshi, A. Kanjilal and H.K. Sehgal 221 (2004) 43

Surface morphology

Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films, Y.S. Jung, D.W. Lee and D.Y. Jeon 221 (2004) 136

Surface roughness

Removal of Si(1 1 1) wafer surface etch pits generated in ammonia-peroxide clean step, Z. Xiao, M. Xu, T. Ohgi, K. Onishi and D. Fujita 221 (2004) 160

Thermal deposition

Adsorption, initial growth and desorption kinetics of *p*-quaterphenyl on polycrystalline gold surfaces, S. Müllegger, O. Stranik, E. Zojer and A. Winkler 221 (2004) 184

Thin films

Valence electron structure analysis of crystalline orientation in plasma-sprayed TiO_2 coatings, J.-m. Zhang and K.-w. Xu 221 (2004) 1
Optimization of the stabilized performance of amorphous silicon solar cells deposited at high growth rates by de-coupling of gas and superstrate temperatures, G. Ganguly, R.S. Oswald and D.E. Carlson 221 (2004) 13
Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32

Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38
Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene, M. Womack, M. Vendan and P. Molian 221 (2004) 99
The photoemissive effect of the ITO–Cs thin film, Z. Shouzhen, X. Baosen and L. Cuiguo 221 (2004) 110
Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films, Y.S. Jung, D.W. Lee and D.Y. Jeon 221 (2004) 136
Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155
Interfacial reactions and microstructure of $BaTiO_3$ films prepared using fluoride precursor method, S. Fujihara, T. Schneller and R. Waser 221 (2004) 178
Adsorption, initial growth and desorption kinetics of *p*-quaterphenyl on polycrystalline gold surfaces, S. Müllegger, O. Stranik, E. Zojer and A. Winkler 221 (2004) 184
Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231
Study on texture evolution and properties of silver thin films prepared by sputtering deposition, Y.S. Jung 221 (2004) 281
Field-effect mobilities of polyhedral oligomeric silsesquioxanes anchored semiconducting polymers, W.W. Zhu, S. Xiao and I. Shih 221 (2004) 358
XPS and XAES studies of as grown and nitrogen incorporated tetrahedral amorphous carbon films deposited by pulsed unfiltered cathodic vacuum arc process, O.S. Panwar, Y. Aparna, S.M. Shivaprasad, M.A. Khan, B.S. Satyanarayana and R. Bhattacharyya 221 (2004) 392
Pulsed slow-positron beam for polymer films, C. He, E. Hamada, T. Suzuki, T. Kumaki, H. Kobayashi, K. Kondo and Y. Ito 221 (2004) 444
Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements, O. Sakata, M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto 221 (2004) 450
Correlation of surface, mechanical and microproperties of tetrahedral amorphous carbon films deposited under different magnetic confinement conditions, D.H.C. Chua, K.B.K. Teo, T.H. Tsai, W.I. Milne, D. Sheeja, B.K. Tay and D. Schneider 221 (2004) 455

Tin

Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method, V.P. Tolstoy, L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari 221 (2004) 197

Titanium

Interfacial reactions and microstructure of $BaTiO_3$ films prepared using fluoride precursor method, S. Fujihara, T. Schneller and R. Waser 221 (2004) 178
Plasma assisted nitridation of Ti-6Al-4V, V. Fouquet, L. Pichon, M. Drouet and A. Straboni 221 (2004) 248

Titanium oxide

Valence electron structure analysis of crystalline orientation in plasma-sprayed TiO_2 coatings, J.-m. Zhang and K.-w. Xu 221 (2004) 1
Photocatalysis of neodymium ion modified TiO_2 sol under visible light irradiation, Y. Xie and C. Yuan 221 (2004) 17
Insulator–metal transition on heavily reduced TiO_2(1 1 0) surface studied by high temperature-scanning tunnelling spectroscopy (HT-STS), Z. Klusek, S. Pierzgalski and S. Datta 221 (2004) 120
Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129

Trobology

Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129

Vanadium

Plasma assisted nitridation of Ti-6Al-4V, V. Fouquet, L. Pichon, M. Drouet and A. Straboni 221 (2004) 248

Water

Surface morphology and interaction between water and MgO, CaO and SrO surfaces. Periodic HF and DFT calculations, W.S. Abdel Halim and A.S. Shalabi 221 (2004) 53

X-ray diffraction

Photocatalysis of neodymium ion modified TiO_2 sol under visible light irradiation, Y. Xie and C. Yuan 221 (2004) 17

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M. Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32
Self-assembled Au–Si alloy nanocones: synthesis and electron field emission characteristics, Q. Wan, T.H. Wang and C.L. Lin 221 (2004) 38
Solution grown PbS nanoparticle films, R.K. Joshi, A. Kanjilal and H.K. Sehgal 221 (2004) 43
Surface strengthening pure copper by Ni-B coating, S. Ziyuan, W. Deqing and D. Zhimin 221 (2004) 62
SERS studies on the ordered structure of the surface of polypyrrole nanotubules, J. He, W. Chen, N. Xu, L. Li, X. Li and G. Xue 221 (2004) 87
Femtosecond pulsed laser ablation and deposition of thin films of polytetrafluoroethylene, M. Womack, M. Vendan and P. Molian 221 (2004) 99
Preparation and characterization of hydrophobic organic–inorganic composite thin films of PMMA/SiO_2/TiO_2 with low friction coefficient, G. Gu, Z. Zhang and H. Dang 221 (2004) 129
Influence of dc magnetron sputtering parameters on surface morphology of indium tin oxide thin films, Y.S. Jung, D.W. Lee and D.Y. Jeon 221 (2004) 136
Ferromagnetism in (In, Mn)As alloy thin films grown by metalorganic vapor phase epitaxy, A.J. Blattner and B.W. Wessels 221 (2004) 155
Interfacial reactions and microstructure of $BaTiO_3$ films prepared using fluoride precursor method, S. Fujihara, T. Schneller and R. Waser 221 (2004) 178
Synthesis of nanolayers hydroxo-($Sn_xO_yH_z$) and heteropoly-($H_xPW_yO_z$) compounds of hybrid-type on silica surfaces by successive ionic layer deposition method, V.P. Tolstoy, L.B. Gulina, G.S. Korotchenkov and V.I. Brynsari 221 (2004) 197
X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles, S. Ram and A. Mondal 221 (2004) 237
Plasma assisted nitridation of Ti-6Al-4V, V. Fouquet, L. Pichon, M. Drouet and A. Straboni 221 (2004) 248
Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane, J. Wang, S. Yang, X. Liu, S. Ren, F. Guan and M. Chen 221 (2004) 272
Study on texture evolution and properties of silver thin films prepared by sputtering deposition, Y.S. Jung 221 (2004) 281
Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting, A.H. Wang, W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng 221 (2004) 293
Microstructure and electrical properties of iron oxide thin films deposited by spray pyrolysis, A.A. Akl 221 (2004) 319
Electrochemical behaviour of silver in borate buffer solutions, A.M. Zaky, F.H. Assaf, S.S. Abd El Rehim and B.M. Mohamed 221 (2004) 349
Femtosecond pulsed laser ablation of GaAs, T.W. Trelenberg, L.N. Dinh, C.K. Saw, B.C. Stuart and M. Balooch 221 (2004) 364
The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375
Structural analysis of NiO ultra-thin films epitaxially grown on ultra-smooth sapphire substrates by synchrotron X-ray diffraction measurements, O. Sakata, M.-S. Yi, A. Matsuda, J. Liu, S. Sato, S. Akiba, A. Sasaki and M. Yoshimoto 221 (2004) 450

X-ray scattering

Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231

X-ray spectroscopy

Strain relaxation behavior of the InGaN/GaN multiple quantum wells observed by transmission electron microscopy, H.K. Cho, J.Y. Lee and J.Y. Leem 221 (2004) 288
Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting, A.H. Wang, W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng 221 (2004) 293

Yttrium

Microstructures of pulsed laser deposited Eu doped Y_2O_3 luminescent films on Si(0 0 1) substrates, S.S. Kim, J.H. Moon, B.-T. Lee, K.-S. Sohn, T.S. Kang and J.H. Je 221 (2004) 231
Comparison of electrochemical behavior of zirconium and zircaloy-4 implanted with Y and Ce ions, D.Q. Peng, X.D. Bai, X.W. Chen, Q.G. Zhou, X.Y. Liu and R.H. Yu 221 (2004) 259

Zinc oxide

Fabrication and properties of As-doped ZnO films grown on GaAs(0 0 1) substrates by radio frequency (rf) magnetron sputtering, W. Lee, D.-K. Hwang, M.-C. Jeong, M.

Lee, M.-S. Oh, W.-K. Choi and J.-M. Myoung 221 (2004) 32

Zirconium

X-ray photoelectron spectroscopic studies of Al^{3+} stabilized t-ZrO_2 of nanoparticles, S. Ram and A. Mondal 221 (2004) 237

Preparation and characterization of ZrO_2 thin film on sulfonated self-assembled monolayer of 3-mercaptopropyl trimethoxysilane, J. Wang, S. Yang, X. Liu, S. Ren, F. Guan and M. Chen 221 (2004) 272

Microstructural characteristics of Al_2O_3-based refractory containing ZrO_2 induced by CO_2 laser melting, A.H. Wang, W.Y. Wang, C.S. Xie, W.L. Song and D.W. Zeng 221 (2004) 293

The thermal stability and catalytic performance of Ce-Zr promoted Rh-Pd/γ-Al_2O_3 automotive catalysts, X. Wu, L. Xu and D. Weng 221 (2004) 375